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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/825,353   | 04/04/2001  | Erik Dahlman         | 2380-307            | 1424             |
| 23117  | 7590        | 11/03/2005           | EXAMINER            |                  |
| NIXON & VANDERHYE, PC<br>901 NORTH GLEBE ROAD, 11TH FLOOR<br>ARLINGTON, VA 22203 |             |                      | NGUYEN, HANH N      |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2668                |                  |

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/825,353

Applicant(s)

DAHLMAN ET AL.

Examiner

Hanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Response filed in 10/11/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☒ Claim(s) 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 1/27/03&9/17/03.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_



**HANH NGUYEN**  
**PRIMARY EXAMINER**

## **DETAILED ACTION**

### ***Finality withdrawal***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

The indicated allowability of claims 10 and 14 is withdrawn in view of the newly discovered reference(s) to Walton et al. (Pat. 6,744,743 B2). Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, 8, 9, 12, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 30, 33, 34, 35 and 36 are rejected under 35 USC 103(a) as being unpatentable over Dent (US Pat. 6,823,170 B1) in view of Bender et al. (US pat. 6,888,805 B2).

In claims 1, 8, 9, 12, 18, 19, 20, 21, 24, 26, 27, 28, 30, 33, 34, 35 and 36, Dent discloses a dual mode satellite/cellular communications system 10 ( fig.1 & see fig.3, element 204 col.7, lines 30-35) having a first type of channel ( forward link/downlink channel from satellite 100 to mobile 20) and a second type of channel different from the first type of channel ( uplink/reverse link channel from mobile to satellite), comprising: establishing a connection with a mobile radio in a cell that includes the first type of channel and the second type of channel ( satellite 100

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receives signals from mobile 20 on uplink channel and transmits signals to the mobile 20 on downlink channel); associating a first frequency reuse for the first type of channel ( the forward channel is associated with a frequency reuse F1), and associating a second frequency reuse for the second type of channel ( the reverse channel is associated with reuse frequency F2). See col.4, lines 60-65 & col.5, lines 18-35. Dent does not disclose a cellular system wherein one of the channels is a code division multiple access (CDMA) channel. Bender et al. discloses a CDMA system 100 (see fig.1) comprising cells 102. Frequency reuse is applied to Downlink and uplink transmissions (one of the first type of channel and the second type of channel is a CDMA channel) between terminal 106 and access point 104. See col.4, lines 1-35. Therefore, it would have been obvious to one skilled in the art to associate a frequency reuse with a CDMA channel in the system of Dent in order to assign one of the channels with a frequency reuse and reduce interference.

In claims 6, 17 and 22, Dent discloses a frequency reuse F1 and a frequency reuse F2 to forward channel and reverse channel respectively. (see fig.1); and Bender et al discloses a frequency reuse of 1. Therefore, it would have been obvious to one skilled in the art to assign different frequency reuse factors such that the first frequency reuse is greater than the second , wherein the second frequency reuse is 1. The motivation is to reduce cochannel interferences.

In claim 7, Dent does not disclose the second frequency reuse is equal to one. Bender et al. discloses in fig.2A wherein cells are associated with frequency reuse factor of 1. see col.4, lines 25-30. Therefore, it would have been obvious to apply the frequency reuse of 1 into a channel of Dent in order to assign a frequency of 1 to one of channels.

Claims 3-5, 13, 16, 25, 31, 32 are rejected under 35 USC 103(a) as being unpatentable over Dent (US Pat. 6,823,170 B1) in view of Bender et al. (US pat. 6,888,805 B2) and further in view of H'mimy et al. (pat. 6,512,752 B1).

In claims 3-5, 16, 25, 31 and 32, Dent discloses the first channel is a shared channel as described in claim 1. But Dent does not disclose the second type of channel is a dedicated channel. H'mimy et al. discloses mobile 12 is allocated a dedicated channel in a frequency reuse system shown in fig.3 ( col.4, lines 12-18). Therefore, it would have been obvious to one ordinary skilled in the art to combine the H'Mimy et al. with the Dent in order to establish share channel and dedicate channel.

In claim 13, Dent does not disclose radio network vontroller coupled to one or more base station. H'Mimy et al. discloses in fig.1, BSC 28 coupled to base stations 26. Therefore, it would have been obvious to one ordinary skilled in the art to accomplish a radio network controller into the sattelite system of Dent in order to coupled base station controller with base station.

Claims 11, 23 and 29 are rejected under 35 USC 103(a) as being unpatentable over Dent (US Pat. 6,823,170 B1) in view of Bender et al. (US pat. 6,888,805 B2) and further in view of Mujtaba (pat. 6,813,254 B1).

In claims 11, 23 and 29, Dent et al. does not disclose one of the first and the second channel is OFDM channel. Mujtaba discloses in fig.11, that the using of OFDM downlink channel 102 ( see col.6, lines 30-45). Therefore, it would have been obvious to one ordinary skilled in the art to use OFDM in downlink or uplink channel in Dent so that the first channel is CDMA channel and the second channel is an OFDM channel.

Claims 10 and 14 are rejected under 35 USC 103(a) as being unpatentable over Dent (US Pat. 6,823,170 B1) in view of Bender et al. (US pat. 6,888,805 B2) and further in view of Walton et al. (pat. 6,744,743 B2).

In claims 10 and 14, as described in claims 1 and 36, Dent does not disclose a first type of channel not configured to use soft handover and a second type of channel configured to use soft handover. Walton discloses, in fig.1, terminal 106 communicates with base station 104 on downlink and uplink transmissions depending on soft handoff is employed. See col.7, lines 1-10. This means that there is at least either a downlink transmission or an uplink transmission established on a soft handoff ( a first type of channel configured to use in soft handover).

#### ***Allowable Subject Matter***

Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 37, the prior art fails to disclose a handover circuitry configured to perform a first type of handover of the communication carried on the first type of channel and to perform a second type of handover of the communication carried on the second type of channel.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Muller (US Pat. 6,845,238 B1); Soliman (Pat. 6,356,531 B1);

Mazur et al. (Pat. 6,438,115 B1).

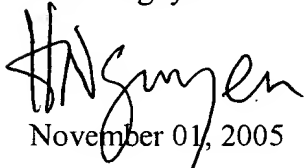
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan, can be reached on 5712723042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



November 01, 2005

**HANH NGUYEN  
PRIMARY EXAMINER**